

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

ATTORNEYS AT LAW

1100 NEW YORK AVENUE, N.W. • WASHINGTON, D.C. 20005-3934

PHONE: (202) 371-2600 • FACSIMILE: (202) 371-2540 • www.skgf.com

ROBERT GREENE STERNE  
EDWARD J. KESSLER  
JORGE A. GOLDSTEIN  
SAMUEL L. FOX\*\*\*  
DAVID K.S. CORNWELL  
ROBERT W. ESMOND  
TRACY-GENE G. DURKIN  
MICHELE A. CIMBALA  
MICHAEL B. RAY  
ROBERT E. SOKOHL  
ERIC K. STEFFE  
MICHAEL O. LEE  
STEVEN R. LUDWIG

JOHN M. COVERT  
LINDA E. ALCORN  
ROBERT C. MILLONIG  
MICHAEL V. MESSINGER  
JUDITH U. KIM  
TIMOTHY J. SHEA, JR.  
PATRICK E. GARRETT  
JEFFREY T. HELVEY\*  
HEIDI L. KRAUS  
JEFFREY R. KURIN  
PATRICK D. O'BRIEN  
LAWRENCE B. BUGAISKY  
CRYSTAL D. SAYLES

EDWARD W. YEE  
ALBERT L. FERRO\*  
DONALD R. BANOWIT  
PETER A. JACKMAN  
MOLLY A. MCCALL  
TERESA U. MEDLER  
JEFFREY S. WEAVER  
KENDRICK P. PATTERSON  
DONALD J. FEATHERSTONE  
VINCENT L. CAPUANO  
JOHN A. HARROUN\*  
ALBERT J. FASULO II\*  
ELDORA ELLISON FLOYD\*

W. RUSSELL SWINDELL  
THOMAS C. FIALA  
BRIAN J. DEL BUONO\*  
VIRGIL L. BEASTON\*  
RYAN J. STAMPER\*  
REGINALD D. LUCAS\*  
THEODORE A. WOOD  
ELIZABETH J. HAANES  
BRUCE E. CHALKER  
JOSEPH S. OSTROFF  
KAREN R. MARKOWICZ\*\*  
SUZANNE E. ZISKA\*\*  
ANDREA J. KAMAGE\*\*

NANCY J. LEITE  
JOSEPH M. COMRAD  
DOUGLAS M. WILSON\*  
ANN E. SUMMERFIELD  
CYNTHIA M. BISHOP  
HELENE C. CARLSON\*  
GABY L. LONGWORTH  
DUSTIN T. JOHNSON\*\*  
MATTHEW J. DEAN\*\*  
AARON L. SCHWARTZ\*\*

\*LIMITED TO MATTERS  
AND PROCEEDINGS BEFORE  
FEDERAL COURTS & AGENCIES  
\*\*REGISTERED PATENT AGENT  
\*\*\*SENIOR COUNSEL

WRITER'S DIRECT NUMBER:  
(202) 218-7834  
INTERNET ADDRESS:  
BHAANES@SKGF.COM

January 17, 2002

Commissioner for Patents  
Washington, D.C. 20231

Art Unit : To be assigned

Re: U.S. Utility Patent Application  
Appl. No. 10/005,842; Filed: December 7, 2001  
For: **Death Domain Containing Receptor 5**  
Inventors: Ni *et al.*  
Our Ref: 1488.131000A/EKS/EJH

Sir:

Transmitted herewith for appropriate action are the following documents:

1. Information Disclosure Statement;
2. Listing of the cited documents on Form PTO-1449 (8 sheets);
3. A copy of each of the forty-five (45) cited documents (AA1-AP1, AR1-AT1, AL2-AP2, AR2-AT2, AL3, AM3, AR3-AT3, AR4-AT4, AR5-AT5, AR6-AT6, AR7-AT7 and AR8-AS8) on Form PTO-1449; and
4. Return Postcard.

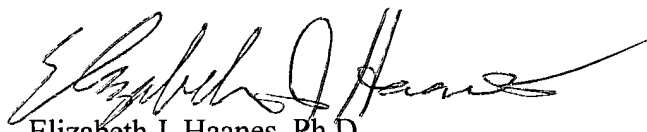
It is respectfully requested that the attached postcard be stamped with the date of filing of these documents, and that it be returned to our courier. In the event that extensions of time are necessary to prevent abandonment of this patent application, then such extensions of time are hereby petitioned.

Commissioner for Patents  
January 17, 2002  
Page 2

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036. A duplicate copy of this letter is enclosed.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read "Elizabeth J. Haanes", is written over the typed name.

Elizabeth J. Haanes, Ph.D.  
Attorney for Applicants  
Registration No. 42,613

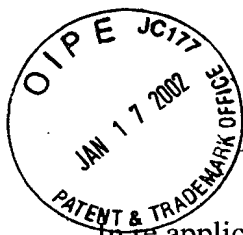
EJH/pcd  
Enclosures

P:\USERS\BHAANES\1488\131000A\lds\_skfcrvrltr

RECEIVED

MAR 19 2002

TECH CENTER 1600/2900



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:

Ni *et al.*

Appl. No. 10/005,842

Filed: December 7, 2001

For: **Death Domain Containing  
Receptor 5**

Art Unit: *To be assigned*

Examiner: *To be assigned*

Atty. Docket: 1488.131000A/EKS/EJH

### Information Disclosure Statement

Commissioner for Patents  
Washington, D.C. 20231

Sir:

Listed on accompanying Form PTO-1449 are documents that may be considered material to the examination of this application, in compliance with the duty of disclosure requirements of 37 C.F.R. §§ 1.56, 1.97 and 1.98.

The Examiner's attention is directed to the following co-pending U.S. Patent Applications, which are directed to related technical subject matter:

U.S. Patent Application No. 09/042,583, filed March 17, 1998, submitted herewith as Document AT7; and

U.S. Patent Application No. 09/565,009, filed May 4, 2000, submitted herewith as Document AR8.

Applicants wish to bring to the attention of the Examiner that SEQ ID NO.: 1 and the corresponding cDNA clone of this application are related to SEQ ID NOs. 7851 and 190763 in copending U.S. Patent Application Serial No. 09/912,293. A legible copy of that

portion of U.S. Patent Application No. 09/912,293 which caused it to be listed on the attached Form PTO-1449 is submitted herewith as Document AS8.

Where the publication date of a listed document does not provide a month of publication, the year of publication of the listed document is sufficiently earlier than the effective U.S. filing date and any foreign priority date so that the month of publication is not in issue. Applicants have listed publication dates on the attached PTO-1449 based on information presently available to the undersigned. However, the listed publication dates should not be construed as an admission that the information was actually published on the date indicated.

Applicants reserve the right to establish the patentability of the claimed invention over any of the information provided herewith, and/or to prove that this information may not be prior art, and/or to prove that this information may not be enabling for the teachings purportedly offered.

This statement should not be construed as a representation that a search has been made, or that information more material to the examination of the present patent application does not exist. The Examiner is specifically requested not to rely solely on the material submitted herewith.

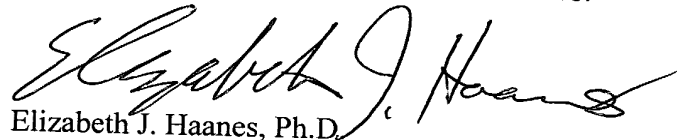
This Information Disclosure Statement is being filed before the mailing date of a first Office Action on the merits. No statement or fee is required.

It is respectfully requested that the Examiner initial and return a copy of the enclosed PTO-1449, and indicate in the official file wrapper of this patent application that the documents have been considered.

The U.S. Patent and Trademark Office is hereby authorized to charge any fee deficiency, or credit any overpayment, to our Deposit Account No. 19-0036. A duplicate copy of this pleading is enclosed.

Respectfully submitted,

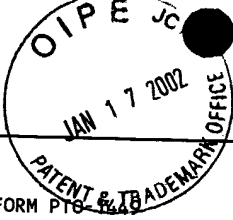
STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.



Elizabeth J. Haanes, Ph.D.  
Attorney for Applicants  
Registration No. 42,613

Date: January 17, 2002

1100 New York Avenue, N.W.  
Suite 600  
Washington, D.C. 20005-3934  
(202) 371-2600



RECEIVED

MAR 19 2002

Page 1 of 8

FORM PTO-1449

ATTY. DOCKET NO.  
1488.131000A/EKS/EJHTECH CENTER 1600/2900  
10/005,842

## INFORMATION DISCLOSURE STATEMENT

APPLICANT  
Ni et al.FILING DATE  
December 7, 2001GROUP  
To be assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA1	4,002,531	01/11/1977	Royer	195	68	01/22/1976
	AB1	4,946,778	08/07/1990	Ladner et al.	435	69.6	01/19/1989
	AC1	5,349,053	09/20/1994	Landolfi	530	351	06/10/1993
	AD1	5,447,851	09/05/1995	Beutler et al.	435	69.7	04/02/1992
	AE1	5,478,925	12/26/1995	Wallach et al.	530	351	08/07/1992
	AF1	5,530,101	06/25/1996	Queen et al.	530	387.3	12/19/1990
	AG1	5,565,332	10/15/1996	Hoogenboom et al.	435	69.1	09/23/1994
	AH1	5,643,575	07/01/1997	Martinez et al.	424	194.1	10/27/1993
	AI1	5,763,223	06/09/1998	Wiley et al.	435	69.5	06/25/1996
	AJ1	5,807,715	09/15/1998	Morrison et al.	435	69.6	06/27/1994
	AK1	6,072,047	06/06/2000	Rauch et al.	536	23.5	06/26/1997

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL1	EP 0 239 400 B1	09/30/1987	Europe			Yes No
	AM1	EP 0 401 384 B1	12/12/1990	Europe			Yes No
	AN1	WO 91/06570	05/16/1991	WIPO			Yes No
	AO1	WO 91/09967	07/11/1991	WIPO			Yes No
	AP1	CA 2045869	12/29/1991	Canada			Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	1	Chaudhary, P.M., et al., "Death Receptor 5, a New Member of the TNFR Family, and DR4 Induce FADD-Dependent Apoptosis and Activate the NF- $\kappa$ B Pathway," <i>Immunity</i> 7:821-830, Cell Press (December 1997).
AS	1	Chinnaiyan, A.M., et al., "Signal Transduction by DR3, a Death Domain-Containing Receptor Related to TNFR-1 and CD95," <i>Science</i> 274:990-992, American Association for the Advancement of Science (November 1996).
AT	1	Delgado, C., et al., "The Uses and Properties of PEG-Linked Proteins," <i>Crit. Rev. Ther. Drug Carrier Sys.</i> 9:249-304, CRC Press, Inc. (1992).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



MAR 19 2002

TECH CENTER 1600/2900 Page 2 of 8

FORM PTO-1449

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
1488.131000A/EKS/EJHAPPLICATION NO.  
10/005,842APPLICANT  
Ni et al.FILING DATE  
December 7, 2001GROUP  
To be assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL2	EP 0 510 691 A1	10/28/1992	Europe			Yes No
	AM2	WO 94/01548	01/20/1994	WIPO			Yes No
	AN2	WO 95/06058	03/02/1995	WIPO			Yes No
	AO2	WO 98/32856	07/30/1998	WIPO			Yes No
	AP2	WO 98/35986	08/20/1998	WIPO			Yes No

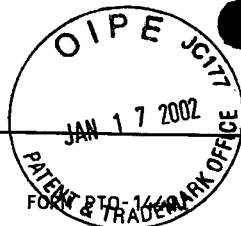
## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	2	Huston, J.S., et al., "Protein Engineering of Single-Chain Fv Analogs and Fusion Proteins," <i>Meth. Enzymol.</i> 203:46-88, Academic Press, Inc. (1991).
	AS	2	Marsters, S.A., et al., "A novel receptor for APO2L/TRAIL contains a truncated death domain," <i>Curr. Biol.</i> 7:1003-1006, Current Biology Ltd. (December 1997).
	AT	2	Morpurgo, M., et al., "Covalent Modification of Mushroom Tyrosinase with Different Amphiphilic Polymers for Pharmaceutical and Biocatalysis Applications," <i>Appl. Biochem. Biotechnol.</i> 56:59-72, Humana Press Inc. (January 1996).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



RECEIVED

MAR 19 2002

Page 3 of 8

TECH CENTER 1600/2900

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
1488.131000A/EKS/EJHAPPLICATION NO.  
10/005,842APPLICANT  
Ni et al.FILING DATE  
December 7, 2001GROUP  
To be assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL3	EP 0 870 827 A2	10/14/1998	Europe			Yes No
	AM3	WO 99/02653	01/21/1999	WIPO			Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	3	Morrison, S.L., "Transfectomas Provide Novel Chimeric Antibodies," <i>Science</i> 229:1202-1207, American Association for the Advancement of Science (1985).
	AS	3	Pan, G., et al., "The Receptor for the Cytotoxic Ligand TRAIL," <i>Science</i> 276:111-113, American Association for the Advancement of Science (April 1997).
	AT	3	Pan, G., et al., "An Antagonist Decoy Receptor and a Death Domain-Containing Receptor for TRAIL," <i>Science</i> 277:815-818, American Association for the Advancement of Science (August 1997).

EXAMINER	DATE CONSIDERED
----------	-----------------

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.





RECEIVED

MAR 19 2002

Page 4 of 8

FORM PTO-1449

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
1488.131000A/EKS/EJHTECH CENTER 1600/2900  
APPROPRIATE  
10/005,842APPLICANT  
Ni et al.FILING DATE  
December 7, 2001GROUP  
To be assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

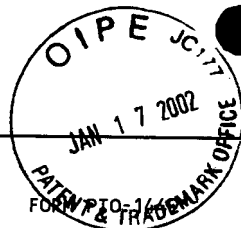
## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	<u>4</u>	Rieger, J., et al., "APO2 ligand: a novel lethal weapon against malignant glioma?" <i>FEBS Lett.</i> 427:124-128, Federation of European Biochemical Societies (May 1998).
AS	<u>4</u>	Roguska, M.A., et al., "Humanization of murine monoclonal antibodies through variable domain resurfacing," <i>Proc. Natl. Acad. Sci. USA</i> 91:969-973, National Academy of Sciences (1994).
AT	<u>4</u>	Schneider, P., et al., "TRAIL Receptors 1 (DR4) and 2 (DR5) Signal FADD-Dependent Apoptosis and Activate NF- $\kappa$ B," <i>Immunity</i> 7:831-836, Cell Press (December 1997).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

RECEIVED  
MAR 19 2002

TECH CENTER 1800/2900

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
1488.131000A/EKS/EJHAPPLICATION NO.  
10/005,842APPLICANT  
Ni et al.FILING DATE  
December 7, 2001GROUP  
To be assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	5	Sheikh, S.M., et al., "p53-dependent and -independent Regulation of the Death Receptor KILLER/DR5 Gene Expression in Response to Genotoxic Stress and Tumor Necrosis Factor $\alpha$ ," <i>Cancer Res.</i> 58:1593-1598, American Association for Cancer Research (April 1998).
	AS	5	Sheridan, J.P., et al., "Control of TRAIL-Induced Apoptosis by a Family of Signaling and Decoy Receptors," <i>Science</i> 277:818-821, American Association for the Advancement of Science (August 1997).
	AT	5	Uhlén, M., et al., "Fusion proteins in biotechnology and structural biology," <i>Curr. Opin. Biotechnol.</i> 3:363-369, Current Biology Ltd. (1992).

EXAMINER

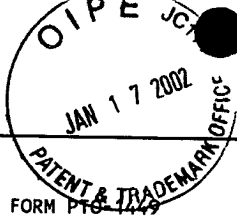
DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

MAR 19 2002

TECH CENTER 1600/2900

Page 6 of 8



## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
1488.131000A/EKS/EJHAPPLICATION NO.  
10/005,842APPLICANT  
Ni et al.FILING DATE  
December 7, 2001GROUP  
To be assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

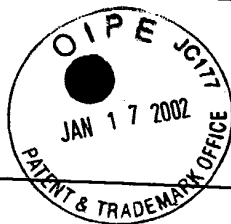
## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

	AR	<u>6</u>	Wiley, S.R., et al., Identification and Characterization of a New Member of the TNF Family that Induces Apoptosis," <i>Immunity</i> 3:673-682, Cell Press (1995).
	AS	<u>6</u>	Zamai, L., et al., "Natural killer (NK) Cell-mediated Cytotoxicity: Differential Use of TRAIL and Fas Ligand by Immature and Mature Primary Human NK Cells," <i>J. Exp. Med.</i> 188:2375-2380, Rockefeller University Press (December 1998).
	AT	<u>6</u>	NCBI Entrez, Genbank Report, Accession No. Z66083, from MacDonald, M., et al. (October 1995).

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.



RECEIVED

MAR 19 2002

TECH CENTER 1600/2900

FORM PTO-1449

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
1488.131000A/EKS/EJHAPPLICATION NO.  
10/005,842APPLICANT  
Ni et al.FILING DATE  
December 7, 2001GROUP  
To be assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes
	AM						No
	AN						Yes
	AO						No
	AP						Yes
							No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	Z	NCBI Entrez, Genbank Report, Accession No. AA223122, from Hillier, L., et al. (February 1997).
AS	Z	NCBI Entrez, Genbank Report, Accession No. AA232440, from Hillier, L., et al. (February 1997).
AT	Z	Pending Non-Provisional United States Patent Application No.09/042,583, Ni et al., filed March 17, 1998.

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

FORM PTO-1449

## INFORMATION DISCLOSURE STATEMENT

ATTY. DOCKET NO.  
1488.131000A/EKS/EJHAPPLICATION NO.  
10/005,842APPLICANT  
Ni et al.FILING DATE  
December 7, 2001GROUP  
To be assigned

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB-CLASS	FILING DATE
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
	AJ						
	AK						

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUB-CLASS	TRANSLATION
	AL						Yes No
	AM						Yes No
	AN						Yes No
	AO						Yes No
	AP						Yes No

## OTHER (Including Author, Title, Date, Pertinent Pages, etc.)

AR	<u>8</u>	Pending Non-Provisional United States Patent Application No. 09/565,009, Ni et al., filed May 4, 2000.
AS	<u>8</u>	Pending Non-Provisional U.S. Patent Application No. 09/912,293, filed July 26, 2001, NOT PUBLISHED: pages 1-75 (pages 1 + 2 partially redacted); portion of Table 2; and SEQ ID NOs.: 7851 and 190763.
AT		

EXAMINER

DATE CONSIDERED

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.